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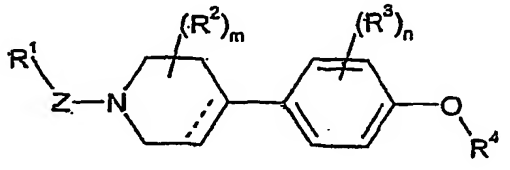
(54) Title: 4- (4-(HETEROCYCLYLALKOXY}PHENYL)-1-(HETEROCYCLYL-CARBONYL)PIPERIDINE DERIVATIVES AND RELATED COMPOUNDS AS HISTAMINE H3 ANTAGONISTS FOR THE TREATMENT OF NEUROLOGICAL DISEASES SUCH AS ALZHEIMER'S



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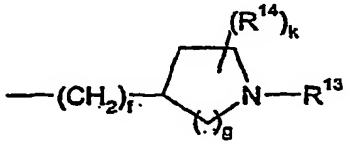

(i)

(57) Abstract: The present invention provides, in a first aspect, a compound of formula (I) or a pharmaceutically acceptable salt thereof wherein: R^1 represents -C_{1-6} alkyl-O-C_{1-6} alkyl, -C_{3-8} cycloalkyl, aryl, heterocyclyl, heteroaryl and other groups; X represents a bond, O, CO, OCH_2, CH_2O or SO_2; Z represents CO, $CONR^{10}$ or SO_2; R^{10} represents hydrogen, C_{1-6} alkyl, -C_{3-8} cycloalkyl, aryl, heterocyclyl, heteroaryl; A represents a single or a double bond; m and n independently represent 0, 1 or 2; R^2 represents hydrogen, C_{1-6} alkyl or C_{1-6} alkoxy; R^3 represents halogen, C_{1-6} alkyl, hydroxy, C_{1-6} alkoxy, cyano, amino, -COC_{1-6} alkyl, -SO_2C_{1-6} alkyl or trifluoromethyl; R^4 represents -$(CH_2)_q$-$NR^{11}R^{12}$ or a group of formula (i) wherein all the other substituents are as defined in claim 1. Compounds of formula (I) and their pharmaceutically acceptable salts have affinity for and are antagonists and/or inverse agonists of the histamine H3 receptor and are believed to be of potential use in the treatment of neurological diseases including Alzheimer's disease.

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